

Evaluation and Reporting Activities

Standard Operating Procedures

511 Regional Rideshare Program



Version 1.4	Revised	Helise Cohn	October 2010
Version 1.3	Revised	Gina Arias	April 2010
Version 1.2	Revised	Helise Cohn	May 2009
Version 1.1	Revised	Helise Cohn	November 2008
Version 1.0	Initial Draft	Helise Cohn	April 2008

Standard Operating Procedures

Evaluation and Reporting Activities

There are seven major deliverables that are produced by the Evaluation and Reporting staff:

1. Monthly Report Card
2. Quarterly Rideshare Program Update Report
3. Monthly Progress Reports
4. Employer Surveys and Reports
5. TFCA Reporting and Methodology
6. Client Surveys
7. Employee Density Map

Reports

In general, the process for each report generated by 511 Rideshare has four parts:

1. Template – this may be a standard set of calculations and/or descriptive text. Calculations are done in either Excel or SPSS.¹¹ MS Word is used for text documents.
2. Data sources – all of the reports contain calculations that show important information about the effectiveness of the 511 Rideshare program. Data comes from tracking mechanisms within the 511 Rideshare program and partner agencies.
3. Quality control – all reports are reviewed to ensure that the information they present is correct and that they meet the needs of the recipient. Quality control is also implemented by having a standard process for each report type.
4. Report archive – all of the reports are kept in paper and electronic format with back-up documentation for future reference.

Monthly Report Card

This report contains information about how the 511 Rideshare program performs on a monthly basis. It is submitted to the Metropolitan Transportation Commission (MTC).

Report Template: Excel spreadsheet. A template is located at R:\Evaluation\Report Cards (look in the subdirectory for the appropriate Fiscal Year). However, it is best to start with a copy of the previous month's Report Card to ensure that the calculations, assumptions and methodology is up-to-date and reflects the most recent comments from MTC.

Data Sources: Data for the Report Card comes from a variety of sources, including Ridematch database reports, the Employer database, Urchin, and RRP vanpool and commuter services (see Exhibit 1) (R:\Evaluation\Report Cards\Current Checklists &

¹¹ SPSS is statistical database software. See www.spss.com for more information.

Worksheets\Updated Report Card Data Sources List_year6.xlsx). The data is collected as soon as possible after the end of the month. Some of the data must be collected on the first business day after the end of the month because the reporting mechanism is dynamic and does not summarize the data for the month. Hard copies are made of all data summaries.

Employer database statistics are collected using several worksheets (see Exhibit 2) by the Employer Services Manager. This data is compiled from the Employer Database, as well as information reported on a monthly basis by the Employer Services Representatives.

Quality Control/Quality Assurance: There is a checklist for completing the Monthly Report card (see Exhibit 3) so that the process for completing the Report Card every month is uniform. Once the Report Card is completed, a draft is submitted to the Operations Manager for review. Upon her approval, the Report Card is submitted to MTC.

Report Archive: All of the Report Cards are kept at R:\Evaluation\Report Cards (see appropriate fiscal year). Hard copies of data summaries for each report card are kept in a file folder for each month (including e-mail).

Exhibit 1**Monthly Report Card Statistic Summary - FY 10-11**

	Statistic	Description	Source	RRP Contact Person
Key Performance Measures	Estimated Clients Placed	The number of individuals who switched, maintained or tried to carpooling, vanpooling or other non-drive alone modes in the last month as a result of utilizing 511 Rideshare's services.	Monthly Report Card spreadsheet	Eval. Dept.
	Vehicle Trips Reduced	The total reduction in drive-alone vehicle trips caused by the switch to carpooling or vanpooling.	Monthly Report Card spreadsheet	Eval. Dept.
	Vehicle Miles Reduced	The total reduction in the number of vehicle miles driven by drive-alone vehicles due to the switch to carpooling or vanpooling.	Monthly Report Card spreadsheet	Eval. Dept.
	Cost per Output	The ratio of Vehicle Trips Reduced or Clients Placed versus the budget of the 511 Rideshare program to-date.	Monthly Report Card spreadsheet	Eval. Dept.
Ridematching	New Ridematch Registrants	Number of current RMS applicants who self-registered or completed a registration form in the last month plus the number of deleted RMS applicants who entered system in the last month.	All Applicants by Month	Eval. Dept.
	Average Annual Database Size	RMS database size at the end of the month.	RMS data dump: include all records with status active/NR/inactive.	IT Dept.
	Average Number of Names per Matchlist	Ratio: total names on matchlists/total number of matchlists viewed.	Match Request Report	Eval. Dept.
	Ridematch Rewards	Number of new ridematch applicants who participated in Ridematch Rewards campaign. All applicants included in NEW RRP APPLICANTS totals at the end of campaign when total is finalized, or at end of fiscal year, whichever comes first. Reflects number of people who signed-up to participate; not necessarily those who actually carpooled.	Applications	Mktg. Dept.

Outreach & Marketing Activities	Carpool to BART Permits	Number of new individuals who are participating in Carpool to BART program. Included in Report Card as part of New Ridematch Registrants monthly totals.	Applications	Contact Center
	Total Employer Database Size	Total number of employers in the database within Alameda, Marin, Santa Clara, and Sonoma Counties.	Employer Database	Employer Svcs.Dept.
	New Employers Contacted/Added to Database	Total number of new employers in the database in Alameda, Marin, Santa Clara and Sonoma counties.	Employer Database	Employer Svcs.Dept.
	Number of Maintenance Employers	Total number of maintenance employers in the database in Alameda, Marin, Santa Clara and Sonoma Counties.	Employer Database	Employer Svcs.Dept.
	Active Employers	Total number of active employers in the database in the five counties.	Employer Database	Employer Svcs.Dept.
	# of Employees Represented by Active Employers	Number of employees working for Active Employers	Employer Database	Employer Svcs.Dept.
	Employees with Access to new TDM Benefits	Notes when a new TDM Benefit is added for an employer. Adds up total employees.	Employer Database	Employer Svcs.Dept.
	Number of New TDM Benefits Implemented	Number of new TDM Benefits implemented during the month at worksites.	Employer Database	Employer Svcs.Dept.
	Events	Number of employer events staffed by a 511 Rideshare ESR during the month.	Employer Database	Employer Svcs.Dept.
	Ridematching Registrants from Events	The number of MLRs generated at each event.	Employer Database	Employer Svcs.Dept.
	Web User Sessions	The number of people who logged onto the 511 site.	http://rideshare.511.org:9999/ Urchin (Marketing Options/Visitor Segment Performance/New vs. Returning)	Eval. Dept.
	All Applicants via the Web	new applicants to the database (including those who deleted during the month) who entered the database via the Web.	All Applicants by Month	Eval. Dept.

	Unique Website Users	The number of unique people who logged onto the 511 site.	http://rideshare.511.org:999/ Urchin (Marketing Options/Visitor Segment Performance/New vs. Returning)	Eval. Dept.
Vanpool Activity	New Vanpools Formed	New vanpools created (RRP only).	Vanpool Group Monthly Report	Employer Svcs. Dept.
	Vanpool Fleet Size	Based on list of all drivers and coordinators in the RMS database, sorted by unique vanpool ID numbers (all agencies using the vanpool database).	VP Contact History	Eval. Dept.
Call Center Activities	Placement Contact	Outgoing calls made to RMS registrants to offer assistance finding a carpool or vanpool match.	RMS	Contact Center
	511 Caller Customer Satisfaction Calls	Outgoing Non-Placement Contact Calls	Phone system	IT Dept.
	Employee Services	Call group defined by 511 and 3600 (RRP) phone calls.	Phone system	IT Dept.
	Commuter Calls	Call group defined by 511 and 3600 (RRP) phone calls. Includes "all groups (other)," "carpool," "rideshare," and "vanpool" calls.	Phone system	IT Dept.
	Commuter Incentives	Call group defined by 511 and 3600 (RRP) phone calls. Includes "commute incentives" and "pre-tax" info calls.	Phone system	IT Dept.
	Airport Calls	Call group defined by 511 and 3600 (RRP) phone calls.	Phone system	IT Dept.
Trip Tables	Vanpool Fleet Origin/Destination	O/D Tables by county	VP Contact History	Eval. Dept.
	Ridematch Database System Origin/Destination	O/D Tables by county for new ridematch registrants	RMS data dump: include all C commuter records	Eval. Dept.

Exhibit 2 – Monthly Employer Services Department Activity Summary

Contract Goal 1600																
County	Active	# of Employees	Change to Active	# of employees	TTL ACTIVE	Total Employees										
Alameda	339	204,222	262	84,250	601	288472										
Marin	199	11,999	69	7,536	268	19535										
LF/Santa Cla	487	212,023	152	106,906	639	318929										
MS/Santa Cla	165	34,578	84	20,596	249	55174										
Sonoma	143	15,184	58	9,574	201	24758										
TOTAL	1333	478006	625	228862	1958	706868										
Non-Contractual & Target Measures																
Maint	Change to Maint	TTL MAINT	Change to Active	Change to Maint	Active	Maint	"NEW" TTL	New TDM Benft	#of Empl	New Link to 511	# of Case Studies	# of on line srvys	# of mlrs on-line srvys	# of events	# MLRs	# of ETC Access
212	40	252	0	0	1	0	1	2	9400	0	0	0	0	0	0	0
59	26	85	0	0	0	0	0	0	0	0	0	0	0	0	0	0
214	257	471	0	0	4	1	5	3	530	0	0	0	0	5	366	0
15	83	98	0	0	4	1	5	1	1000	0	0	0	0	0	0	0
33	21	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0
533	427	960	0	0	9	2	11	6	10930	0	0	0	0	5	366	0

Company

TDM Benefit

of Employees at Site

Owens Corning Corporation
 Critchfield Mechanical, Inc
 City of Morgan Hill
 Alameda County (2 sites/different dates)
 Northrup Grumman

Link to 511 Rideshare
 Link to 511 Rideshare
 Link to 511 Rideshare
 Employee Coffee Meet and Greet
 Map

180
 150
 200
 9400
 1000

Exhibit 3

Monthly Report Card Checklist

This month: April 2010

<i>Task</i>	<i>Completed by:</i>	<i>Date</i>
Pull monthly numbers from databases		
Enter numbers into spreadsheet		
Check data input		
Review Report Card		
Review Report Card		
Make revisions		
Review Report Card		
Make revisions		
Submit Report Card to MTC		
Post Final Report Card to Common folders		

Quarterly Rideshare Program Update

This report summarizes key activities for each component of the Rideshare Program on a quarterly basis. It is submitted to MTC.

Report Template: Quarterly reports are located at R:\Evaluation\Quarterly Rideshare Program Update (look in the subdirectory of the appropriate fiscal year). Use the previous quarter's final submittal as a template as it will include the most recent required contents and calculations.

Data Sources: The calculations in the Quarterly Report are based on the monthly calculations made for the Report Card and additional statistics submitted quarterly by the delegated counties (SFDOE, 511 Contra Costa, the Alliance and Solano Napa Commuter Information (SNCI). Separate spreadsheets are located in R:\Evaluation\Report Cards (see appropriate fiscal year). 511 Rideshare calculates clients placed, vanpool fleet size and average annual database size for SNCI and returns the results to them.

Information on key program activities are provided by the Marketing Manager, Employer Services Manager, and the Operations Manager as needed.

Quality Control/Quality Assurance: Once a draft of the quarterly report is completed, it is submitted to the Operations Manager for review. Upon approval by them, it is submitted to MTC.

Report Archive: All of the quarterly reports are kept at R:\Evaluation\Quarterly Rideshare Update (see appropriate fiscal year). A hard copy is included in a binder on the Evaluation Manager's desk. Hard copies of data documentation for each report card are kept in a file folder for each month (including e-mail).

Monthly Progress Reports

The Evaluation and Reporting Department provides inputs to the Operations Manager for their production of monthly progress reports to the client. Activities for this department are typically summarized in the Program Planning section. The monthly progress reports accompany the monthly invoice submitted to MTC.

Other Products

Employer Surveys

Employer surveys are used by the 511 Rideshare Employer Service Representatives (ESRs) to provide employers with information about the travel behavior of their employees. Requests for employer surveys are made to the Evaluation Manager and the Information Technology (IT) Manager by the ESRs and by representatives of the delegated counties. The Evaluation Manager's role is to work with the ESR and other

representatives concerning any customization of questions, and to process and document the results of the survey.

There are five survey templates (standard, ecopass, shuttle, relocation and expanded) featuring questions for particular situations for which an employer might want information about their employees' travel behavior. The "standard" template is used most frequently. It is up to the ESR to select the type of survey to be used. The surveys can be customized further on a limited basis. Please see the Evaluation Manager for the latest limits. Typically, the survey is posted online by the IT Manager. However, in some cases, at the discretion of the ESR, paper versions of the survey can also be distributed.

The survey templates can be found at:

<https://rideshare.511.org/survey/standard/>

<https://rideshare.511.org/survey/expanded/>

<https://rideshare.511.org/survey/relocation/>

<https://rideshare.511.org/survey/ecopass/>

<https://rideshare.511.org/survey/shuttle/>

Surveys are requested by the ESRs and by representatives of the delegated counties. A form, R:\Information_Technology\Online Surveys\SurveyMapEventEmiss_requestform.doc, is filled out and submitted to the Evaluation Manager and IT Manager which specifies the type of survey, the timeframe for the administration of the survey, and any other special requests.

Once the survey is complete, the Evaluation Manager downloads the results of the survey. The results are located on-line at [https://\[redacted\]](https://[redacted]) ("**<employer url>**" is customized for each employer. The original url for the survey location is provided by the IT Manager. Instructions for downloading and processing the survey results are located at R:\Evaluation\Online Employer Surveys\Instructions. If paper copies of the survey were completed, the results are entered manually by the Commuter Services staff into the online survey form. These results are processed with the online survey results.

The results of the survey are processed in SPSS, a statistical database program. Detailed instructions for using SPSS can be obtained from the Evaluation Manager. In summary, there are separate "syntax" files for processing each type of survey template. The syntax files automate the tabulation of the results and summarize the results in tables. The tabulated data is then inserted into the Survey Report templates (described in previous section). Generally, Survey Reports are available for the ESRs in about three weeks.

Each of the Employer Survey templates contains a section for the respondent to request information on 511 Rideshare services. This is referred to as the "matchlist" section. Matchlist requests are submitted by the Evaluation Manager to the Commuter Services Manager at the culmination of the survey. The submittal is made as an Excel file, using a spreadsheet template produced by the Commuter Services department (the text file

containing the survey results is opened in Excel, converted to Excel and then edited to contain only the matchlist information). Please refer to the file located here:

R:\Commuter_Services\Event and Survey Submissions Tools - All Oakland\Online Event and Survey Submission Spreadsheet - COMPANY - MMDDYY.xlt

Exhibit 4 also shows the quality control checklists used by the ESRs before submitting the report to their clients.

Exhibit 4**Employer Survey Checklist**

Employer:

url: <http://rideshare.511.org/survey> [REDACTED]

Dates of Survey:

RRP Survey Format

☐ Standard☐ Ecopass☐ Expanded☐ Relocate☐ Shuttle☐ Custom

Number of ONLINE Responses

Number of PAPER Responses

Total.....

Total Number of Employees

Number of ONLINE Matchlist Requests..

Number of PAPER Matchlist Requests

Total.....

Task	Completed By...	Date
Download online survey results & create text file		
Hard copy of survey		
Create Excel file of survey results		
Give online requests to Contact Center		
Prepare Survey Report		
Give Report to ESR for review		
Give QA/QC checklist to ESR		
Respond to ESRs comments on Report		
Finalize Survey Report		

ESR Quality Control Checklist Employer Survey Reports

To be filled out before report is submitted to client. Give completed checklist to Helise.

Employer:

Report Date:

ESR/Reviewer:

Date of review:

TABULATIONS

Are there tabulations for all questions on survey?

Were text/tables updated to reflect customizations?

Do tables show the correct totals?

****Initials:**

READABILITY

Is employer name & address correct?

Check for misspellings & other typos.

Are the survey dates correct?

Turn off "track changes" & lines to comments. (turn off lines to comments: Tools menu; options; track changes tab – unselect "show lines connecting to text" box.)

****Initials:**

RESULTS

Do results make sense in terms of employer's workforce characteristics (e.g. no. of responses; vehicle occupancies; zip codes).

****Initials:**

EMISSIONS CALCULATIONS

Were they completed if requested?

Do results make sense in terms of previous years' calculations (if applicable)?

****Initials:**

ACTION ITEMS TO REVISE MAP *(submit to Report Preparer):*

TFCA Reporting and Methodology

The 511 Rideshare program participates in the preparation of the grant application for Transportation for Clean Air (TFCA) funding from the Bay Area Air Quality Management District (BAAQMD). The program is evaluated by the Air District on its ability to reduce regional vehicle miles traveled (VMT) and vehicle trips reduced (VTR) in the Bay Area. The application provides supporting calculations and assumptions to show the impact of the 511 Rideshare program and the delegated counties on travel behavior. The 511 Rideshare contributes data for the calculations which is based on the results of the Ridematch database Client Survey (see next section) and Ridematch database metrics collected throughout the year.

Some of the typical assumptions made in the application, based on 511 Rideshare data, are matchlist placement rate; “previously drove alone” factor; ridesharing number of days/year and “drive to HOV pick-up” factor. Final calculations and assumptions for the application should be developed in conjunction with MTC.

MTC submits the application. 511 Rideshare provides all supporting documentation for the application. Some sections must be completed by MTC as they pertain directly to MTC’s policies and programs. A mid-year report summarizing the 511 Rideshare program and delegated counties’ programs is typically due at the end of March, and a final report is typically due at the beginning of November. Check with MTC for due dates for the current fiscal year.

Client Surveys

Client surveys are administered by the 511 Rideshare program to track travel behavior changes by people using the program’s ridematching system (RMS). The survey results are used to calculate placement rates and other factors for the program’s activities.

The surveys are administered twice during a 12-month period. The survey was most recently administered in October 2009 and April 2010. The October 2010 survey is currently in progress.

For FY 09-10, the surveys were administered and processed by an independent, third party. The surveys were posted on-line; invitations to participate were sent to everyone who requested a new matchlist or updated an existing matchlist during the previous three months. For FY 10-11, the Client Survey was administered as a telephone survey. The criteria for participation did not change; however, potential respondents were contacted directly by phone and invited to participate. The intent of administering the survey by phone is to improve the response rate and to validate the responses of the online version of the survey. Results from the October 2010 survey are expected in late 2010.

The survey is designed to collect the following types of information: placement rates for different 511 Rideshare activities (matchlists and placement calls); current and past (past three months) travel behavior; longitudinal data for current travel mode and changes in

travel modes (including temporary changes); distance traveled; carpool and vanpool occupancy; and demographic data. The survey also asks some questions which provide data on attitudes about carpooling and vanpooling. This information is useful for marketing purposes. Prior to each survey cycle, the survey tool and administration process should be reviewed for effectiveness in meeting the needs of the 511 Rideshare and MTC.

Every 12 months the scope of services will need to be re-visited to determine if it is adequate to meet the current reporting needs of the 511 Rideshare program.

Clients Placed

The Clients Placed calculation shows the number of drive-alone commuters that were assumed to become new carpoolers or vanpoolers during the previous due to 511 Rideshare's efforts. This number is reported in the monthly Report Card. The process for calculating this number is shown below in Exhibit 5:

Exhibit 5

Explanation of Clients Placed Calculations Used in Contractor Monthly Report Card

511 Regional Rideshare Program

Updated with FY 09-10 data, for use in FY 10-11
August 12, 2010

Part 1

The Clients Placed number is based on placements generated by three program activities:

1. Matchlists
2. Placement Calls
3. Riders in New Vanpools

Certain assumptions are made to determine the number of placements that are generated by each type of activity. They are shown below:

Matchlists Placements = “New Applicants” x “Update Factor” x “Placement Rate”
--

New Applicants: the number of new individuals entered into the RMS during the month. Adjusted to not include those that sign up and delete in the same month. (from RMS)

Update Factor: **1.21** – number of people who received an updated matchlist but not a new matchlist during the month. This factor is used to include old applicants who wanted an updated matchlist. Source: RMS

Placement Rate: **37%** Percentage of people who received a new or updated matchlist and who joined a carpool, vanpool or alternative mode during the previous month. Source: Client Survey.

Placement Calls Placements = No. of Placement Calls x “Multiple Factor” x “Placement Rate”

No. of Placement Calls: number of placement calls that are made to individuals in the RMS each month (from RMS/Contact Center)

Multiple Factor: **0.445** – factor to avoid double-counting individuals who received a placement call as well as a new/updated matchlist (which would be included in

the “matchlist” placements). Source: Derived from e-mail list of those eligible for Client Survey

Placement Rate: **37%** Percentage of people who received a new or updated matchlist and who joined a carpool, vanpool or alternative mode during the previous month. Source: Client Survey.

Vanpool Placements = New Vanpools Formed x Riders in Van x % Not in Database

New Vanpools Formed: number of new vanpools starting operation during the month (from vanpool database)

Riders in Van: **10.8** – Average number of riders per new van. Source: survey of new vanpool starts.

% Not in Database: **0.90** Vanpool riders who are not in the RMS and, thus, did not receive a matchlist. Factor used to prevent double-counting of individuals who were counted with the “matchlist” placements. Source: survey of new vanpool starts.

Part 2

SUMMARY – Overall Factor Applied to Each Type of Activity
--

“Matchlist” Clients Placed = No. of New Applicants x 0.45

“Placement Calls” Clients Placed = No. of Placement Calls x 0.2

“Vanpool” Clients Placed = No. of New Vanpools Formed x 9.7

That is...

1 Clients Placed	=	2 New Applicants
	=	5 Placement Calls
	=	0.10 New Vanpool (1 New Vanpool = 10 Placements)

Part 3

EXAMPLE

Matchlist Placements =
1,402 New Applicants x 0.45 = 631 Clients Placed

Placement Calls Placements =
1,372 placement calls x 0.2 = 274 Clients Placed

Vanpool Placements =
4 new vanpools x 9.7 = 39 Clients Placed

TOTAL	944 Clients Placed
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APPENDIX – Placement Rate History

	Placement Rate
FY 09-10	37%
FY 08-09	33%
FY 07-08	38%
FY 06-07	36%
FY 05-06	25.8%

Employee Density Maps

The ESRs often use density maps as tools to show employers if their employees might be candidates for carpooling or vanpooling. The maps show the home locations of all employees, either by address or clustered by zip code.

The maps are produced using information provided by the employer, usually the human resources department. The ESRs obtain this information and request maps from the Evaluation Manager. The data is transferred to the Evaluation Manager in an Excel file. See the Evaluation Manager for current formatting requirements.

The maps are produced using ArcMap/ArcView 9.2. Templates are available on the 511 Rideshare network GIS drive. All of the maps use the same Bay Area base maps; however, the maps can be customized to suit the needs of the ESR and their client.

When starting a map, usually the easiest approach is to use a map that was previously completed for the ESR as a template.

Exhibit 6 is intended as a guide for doing the maps but additional instruction may be necessary depending on the software experience of the person doing the maps. Additional instructions can be found at R:\GIS\0Making Maps.

Once a draft of the map is complete, the map is converted to a pdf file and e-mailed to the ESR. The ESR reviews the map, checks for spelling and formatting errors and to ensure that the mapping looks correct. Once the ESR approves the map, a map is plotted (on WC_Field(Plotter) HPGL2) and delivered to the ESR.

Exhibit 6

Address - Density Map instructions

In order to do the address map, the excel file with the addresses should be cleaned up to reflect bay area addresses only, no P.O. boxes, remove dashes that are in front of the street name (There is a list from Francesca to refer to here). Add a second worksheet to the file with the headers of “employer address” and “zip” and input the company’s address. Label the worksheets “zips” and “employer address” respectively. Open Microsoft Access and create a new blank database in the employer’s directory, save as G:\Employer\Employer_address_2010.mdb (the file must save as an mdb, Access does not default the Save As type to mdb).Go the External Data tab, Import, Excel, open the Excel address file that was just created. Do this twice to import both zips and employer address worksheets. With a table selected, on the Home tab, View, Design View, check that all data is in text format, save and close.

1. Start with a recent existing map for that employer or a template map for a new employer. Remove old address layers if needed.
2. To prepare for adding addresses, load the ESRI Geocoding Service locator for North America, instructions are found here:

G:\ESRI Geocoding Service_instructions.doc

3. Adding the employee and employer addresses
 - a. Go to Tools, Geocoding, Geocode Addresses-You should see the locators listed here. Select Locators/TA_address/NA– click ‘OK.’ In this box, you will add your .mdb address file
 - i. ‘address table’ – add the .mdb address file
 - ii. ‘Zip’ – postal code
 - iii. Leave default – static
 - b. ‘output shape file or feature class’ –Save the shape file to the employer’s database and rename, G:\Employer\employee_addresses.shp, hit Enter, geocoding begins and a box will display progress.
 - c. The next screen reflects how many matches were found.
 - d. Repeat the above process for the employer address.
4. Selecting the symbols for the address dots (you can use whatever size/color that makes sense for the map)
 - a. Size - Circle 2 - Color – Blackberry
 - b. Employer address – Star 3 – Mars Red

Zip Code – Density Map Instructions

1. Start with a recent existing map for that employer or a template map for a new employer. Remove old address layers if needed.
2. Add data,

G:\MAPS for 9 County Area\Updates from

MTC_08\TANA.gdb\Postal_Code_Boundary(polygon not point)

Select the newly added Postal_Code_Boundary layer, right-Click layer properties, Joins & Relates,Join

- a. Choose the field in this layer that the join will be based on: Key
- b. Choose the table to join to this layer, or load the table from disk:
G:\Employer\Employer_address_2010.mdb

- c. Choose the field in the table to base the join on: Zip
- d. OK

The employee zip code data has now been joined to the postal code boundary layer.

3. To create ranges for the density of zips: select the postal code boundary layer, right-click for layer properties, symbology tab
 - a. Show: Quantities, Graduated colors
 - b. Fields: value = #of employees/count, Normalization: none
 - c. Classify – choose 4-5 classes (depending on the data). Break Values: in general use this breakdown 1 (solo driver), 6 (2-6 people for a carpool), 15 (7-15 people for a vanpool), and the highest data value. If the data has counts in the hundreds than adjust these breaks. Hit OK.
 - d. You can select the colors using the Color Ramp.
4. Definition Query, query builder, #of employees hit “>” “0” , then click verify
5. To add a label of the zip code number and count to each area on the map in the layer properties, go to the Labels tab. Check the box to “Label features in this layer,” Expression, delete the current expressions text, in the Label Fields double click the zips.zips expression and it will populate into the Expression box, hand type “& vbnewline &” then double click the label field zips.count. Tip: the “& vbnewline &” text allows the label to be divided into 2 lines. The text must be written correctly (including spaces) in order for the expression to work properly.
6. Other Options: Placement Properties, Duplicate Labels, select Remove duplicate labels, hit OK.
7. Employer Address: Follow the address map instructions to geocode the employer location.

Printing Instructions:

- a. File, Page & Print setup, Printer-WC_Field (Plotter) HPGL2
- b. Paper-Oversize:D
- c. Hit OK
- d. File, Print, Output Image Quality-Best
- e. Hit OK

Tips:

Always double-check the placement of

- a. North Arrow
- b. Mileage scale, delete and reinsert to update proportion
- c. 511 Rideshare Logo is not cut off

PDF files

To create a PDF:

- a. File, Export Map
- b. Save as type-PDF
- c. Make sure the boxes are checked for converter maker/embed fonts